

### REMARKS

Claims 1-3, 10-12, 16 and 17 are pending. Claims 1-3, 10-12, 16-17 have been rejected. Method claims 18-23, 29 and 31 had been withdrawn from consideration as directed to a non-elected invention and are now canceled in order to focus on the product claims. The canceled claims may be presented in one or more continuing applications. Claims 32-46 have been added, all ultimately depending from claim 1. Support for the newly added claims can be found throughout the original specification, including in paragraphs [0041], [0045], [0046], [0050] and [0071] – [0073].

#### *Rejections based on WO 00/73063*

Claims 1-3, 12, 16 and 17 are rejected under 35 U.S.C. §102(b) as being anticipated by Applicants' own WO 00/73063 publication ("PCT 00"). Applicants respectfully traverse.

None of the portions of Applicants' PCT 00 cited in the rejection as disclosing lightweight-loop material laminated to paper (specifically 2:1-5, 3:1-10, FIG. 1C, 10:25-33 and 15:14-30) disclose a flexible laminate. The cited page 2 material discloses a sheet-form fastener component with hook-engageable loops defined by a non-woven web material having a basis weight of less than about 4 ounces per square yard. The cited page 3 material discusses printing on the loop material itself, without any paper layer present. Fig. 1C and related text 10:25-33 discloses loop material laminated to a corrugated board with outer paper layers (see 10:27-32) but without any indication that the laminate has any particular flexibility. In fact, from the context of the specification and intended use of the laminate as a display, the corrugated board laminate would be understood to be stiff enough to be assembled into a self-supporting structure (see 4:1-6). The cited page 15 material similarly discloses the loop material laminated to an outer paper layer of a corrugated board, without any indication that the material *as laminated* has any particular flexibility attributes.

The portion of PCT 00 cited as disclosing winding a laminate on a roll (namely 24:1-10) does not disclose winding a laminate on a roll. Rather, the cited page 24 material is discussing Applicants' earlier processes directed at printing directly on the loop material using a dye

sublimation process in which the image is transferred onto the web material from a pre-printed paper web. However, this process (shown in Fig. 6H) does not result in any lamination of the web to the paper, nor is there any winding of any laminate onto a roll. After transfer, the web material is separated from the paper and wound separately.

Applicants note that as many corrugated boards are relatively much stiffer than anything to which they lay claim, these passages do not adequately support an anticipation rejection based on inherency, which requires that the recited qualities of the laminate would have *necessarily* been present in the product disclosed in the reference.<sup>1</sup>

Not raised in the rejection, Applicants' PCT 00 says at 16:3-6 that "other display substrates to which hook-engageable material may be laminated may be double or triple wall corrugated board of various flute types, paper, chipboard, foam of synthetic resin, wood, wallboard, metal, plastic or cork sheet." Applicants also describe laminating loop material to a sheet of paper that is cut and bound to form a scrap book (see 26:6-10 and Figs. 8-8B). However, even in these passages there is nothing said about a particular stiffness or flexibility, and thus Applicants' own prior disclosure does not inherently anticipate what they now claim. Applicants therefore submit that neither claim 1, nor any claim depending from claim 1, is anticipated by their PCT 00 publication.

This rejection is based upon the assertion that "since textiles and paper materials are inherently flexible, the laminate provided by Shepard et al. is considered flexible unless explicitly evidenced otherwise." Applicants note that their claim 1 requires more than mere flexibility, or even just lower and upper limits on a single parameter, but rather features two very different aspects of the material: (1) an in-plane resistance to stretching significantly provided by the paper; and (2) a bending flexibility enabling rather tight wrapping/rolling of the laminate. The cited PCT 00 publication does not provide either any recognition of such a combination of properties or enough information about any single laminate embodiment to permit the calculation of such properties within the scope of claim 1. Therefore, claim 1 is not anticipated by PCT 00.

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<sup>1</sup> Scaltech Inc. v. Retec/Tetra, LLC, 178 F.3d 1378, 51 USPQ2d 1055 (CAFC 1999) ("Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient to establish inherency.") See also MPEP §2112(IV).

Claims 10-11 have been rejected under 35 U.S.C. §103(a) as being obvious over Applicants' PCT 00 publication. Applicants respectfully traverse, maintaining that claims 10 and 11 are allowable at least as depending from a non-obvious base claim 1.

The loop material described in Applicants' PCT 00 publication was developed to be a very low-cost, low-weight loop material for disposable products. A sample of such loop material laminated to paper is being submitted herewith (separately, by US mail) as an attachment to a declaration by Mr. William Shepard, co-inventor. It is hoped that the nature of the loop product, having a basis weight of less than 4 osy and being formed by needling and then stretching a light fiber batt as described in the PCT 99 publication discussed below, will be more evident through a physical inspection of the product.

There is nothing about the nature of this lightweight loop product that would have suggested its suitability for building construction. Even from the laminated sample provided it should be clear that the loop material itself (i.e., prior to lamination) is extremely flexible and has very low in-plane stiffness. Nor is there anything in Applicants' PCT 00 or PCT 99 publications that would have suggested that this rather gossamer loop product (or any other loop material of less than 4 osy) could be made suitable for building construction by lamination, particularly to paper of such characteristics that the laminate would have *both* a particular in-plane stiffness (e.g., to support shear loads between spaced fastening points, such as staples securing the laminate to a building surface) and a particular out-of-plane flexibility (e.g., to permit large areas of the material to be transported and installed via rolls). Rather, Applicants submit that at the time of their invention one of mere ordinary skill would have simply turned to one of the readily available, heavier loop fabrics if faced with the need for a building construction material.

The combination of the recited in-plane stiffness and bending flexibility is germane to the invention as claimed in claim 1, and is not simply a recitation of two unrelated design features. It should be evident, for example, that these two aspects of the claimed laminate are somewhat related and work against each other. It is the idea of their combination that provides for the realization that such a light loop material could be laminated to a paper substrate in such a way to make it suitable for use as a construction laminate. The Examiner is respectfully urged to view the invention as a whole in evaluating patentability, not as a disjointed assembly of discrete features.

Applicants have amended claim 1 to more specifically delineate the bending flexibility and in-plane stiffness aspects of the claimed laminate.

Applicants respectfully remind the Examiner that the recitation of the product as a building construction laminate is not simply an *intended use* limitation (as if it were recited as a 'laminate *for building construction*'), but rather the singular noun preamble of the claim and as such is effective in defining Applicants' field of endeavor. As discussed in the prior office action response, a specific two-step analysis is required when determining whether a reference is analogous art to be properly applied in an *obviousness* analysis, as opposed to an anticipation analysis. The first step is to determine whether the reference is "within the field of the inventor's endeavor".<sup>2</sup> If not, the reference may still be pertinent if it is "reasonably pertinent to the particular problem with which the inventor was involved."<sup>3</sup>

The inventors define the field of endeavor, by their specification and claims.<sup>4</sup> In this case, the claims in issue all incorporate the preamble of claim 1: "A flexible building construction laminate." None of the cited references is particularly concerned with such laminates, nor discloses any building construction materials. Therefore, none of the references is technically within the field of the inventors' endeavor.

Moreover, Applicants submit that none of the cited references are prior art which, "because of the matter with which it deals, would have commended itself to an inventor's attention in considering his problem."<sup>5</sup> It is improper to define the "problem" broadly, in hindsight, in order to legitimize an improper reference citation.<sup>6</sup> A reference directed to a different purpose than the invention would have provided less motivation or occasion to an inventor to have considered it.<sup>7</sup> Here, none of the references address the problem of how to provide a laminate suitable for securing other materials to building surfaces, nor anything that would point the person of ordinary skill toward the particular solution claimed by Applicants.

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<sup>2</sup> In re Deminski, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986).

<sup>3</sup> Id.

<sup>4</sup> In re Clay, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992).

<sup>5</sup> Id.

<sup>6</sup> To illustrate an example of an improperly broad problem formulation, Applicants note that the Court in *In re Clay* held that "A person having ordinary skill in the art would not reasonably have expected to solve the problem of dead volume in tanks for storing refined petroleum by considering a reference dealing with plugging underground formation anomalies."

<sup>7</sup> Id.

Applicants note for the record with respect to claims 10 and 11 that WO 99/11452 (incorporated by reference in PCT 00 at 13:29) does disclose stretching needled loop materials to achieve high areal stretch ratios. These prior references do not teach or suggest using fiber as fine as 3 denier. Rather, the use of such fine denier fibers is counter to what one of ordinary skill would have proposed for providing loops of reasonable fastening strength, given the disclosure of PCT 00 and PCT 99. The Examiner's reliance on *In re Boesch* is inappropriate without a showing that denier and areal stretch are variables known to be effective to produce a particular result that one of mere ordinary skill would want to achieve in the context of this invention. To repeat from Applicants' earlier response: *no evidence has been presented that even identifies the result for which the Examiner believes these variables are known to be effective, to give Applicants an opportunity to rebut the Examiner's analysis in this regard.*

Rejections based on WO 99/11452

Claims 1-3, 10-12, 16 and 17 have been rejected under 35 U.S.C. §103(a) as being obvious over Applicants' WO 99/11452 publication ("PCT 99") in view of U.S. Pub. No. 2002/0019206 to Deka et al. ("Deka"). Applicants respectfully traverse.

This rejection is based on an assertion that one of ordinary skill would have replaced the loop material backing Deka's abrasive disks with Applicants' previously disclosed loop material, and that the resulting (improved) abrasive sanding disks would be examples of a flexible building construction laminate within the scope of Applicants' claim 1.

Applicants do not concur that one of mere ordinary skill would have, at the time of the invention, found it reasonable to replace Deka's loop material with the loop material disclosed in PCT 99. Sandpaper carries a loop material on its back surface specifically for attaching the sandpaper to a surface of a sanding tool, often to a flat sanding disk. Deka notes at [0005] the problems attendant to such materials formed by laminating a separate loop materials to the paper, particularly that, "because they have been made from two separate layers that have been laminated together, they are costly to manufacture. Moreover, delamination can occur, particularly under conditions of high stress or temperature. ... Accordingly, there is a need for an *improved loop material*, which will reduce or eliminate such problems..." (emphasis added). Deka goes on to explain the improved attributes of his particular loop material, such that

someone of ordinary skill would not have been led from this disclosure away from Deka's improvements and toward lamination of separate loop and paper layers.

Moreover, Applicants maintain that whether or not someone of mere ordinary skill would have, at the time of the invention, found it reasonable to replace Deka's loop material with the loop material disclosed in PCT 99, the resulting product would not be a building construction laminate nor would necessarily have exhibited the specific qualities Applicants recite in their claim 1. Rather, the resulting product would be a *sandpaper* and there is no indication that such sandpaper would have chanced to have the specific qualities that Applicants found to be key to their building construction laminate.

As discussed above with respect to the obviousness rejection of claims 10 and 11, the recitation of the product as a building construction laminate is not simply an intended use limitation (as if it were recited as a 'laminate *for building construction*'), but rather the singular noun preamble of the claim and as such is effective in defining Applicants' field of endeavor. As discussed in the prior office action response, a specific two-step analysis is required when determining whether a reference is analogous art to be properly applied in an *obviousness* analysis, as opposed to an anticipation analysis. These references are clearly not within the field of endeavor of the instant application, and there is nothing in the record, or in these references, that explains how one of mere ordinary skill would have found the Deka sandpaper reference, for example, reasonably pertinent to the particular problems involved in creating a suitable flexible building construction laminate. It is noteworthy that Deka is concerned with trying to find a loop material suitable for attaching a sanding surface, whereas Applicants were concerned with trying to find a way to handle and secure a lightweight loop material, such that the *loop material* (not its backing) could be presented for engagement.

Applicants respectfully request that the outstanding rejections of these claims be reconsidered and withdrawn, in light of the above amendments and remarks.

Should the Examiner feel that further amendment or discussion may be necessary to place the claims in condition for allowance, she is welcomed to call the undersigned attorney at her convenience.


Applicant : William H. Shepard et al  
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Applicants request a three-month extension of time. All fees are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply all charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 05918-336US1.

Respectfully submitted,

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